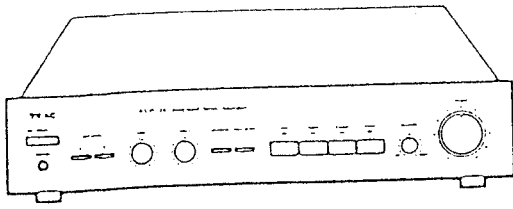


TEAC®



SERVICE MANUAL

A-X35

DC Integrated Stereo Amplifier

NOTES

1. In this manual, 0 dB is referenced to 1V.
2. Δ Parts marked with this sign are safety critical components. They must always be replaced with identical components – refer to the appropriate parts list and ensure exact replacements.
3. PC boards shown are viewed from foil side.

1 SPECIFICATIONS

Type DC Integrated Stereo Amplifier

Rated Output Power

(Both Channels, 8 ohms)

40W + 40W (1kHz, 0.05% T.H.D.)

35W + 35W (20Hz ~ 20kHz, 0.1% T.H.D.)

Total Harmonic Distortion

0.1% (20Hz ~ 20kHz, at 35W + 35W Output Power)

Output Bandwidth

IHF, -3dB, 25Hz ~ 80kHz

Frequency Response

TUNER, CD/AUX, TAPE 1, 2, to SP out 25Hz

80kHz +0, -3dB

PHONO to REC OUT, 20Hz ~ 20kHz ± 0.5 dB (RIAA)

Input Sensitivity

PHONO MM 2.8mV/47k ohms

TUNER, CD/AUX, TAPE 1, 2, 150mV/47k ohms

Rated Output Voltage/Impedance

TAPE REC 1, 2, 150mV/47k ohms

Signal-to-Noise Ratio

(IHF A Network, short circuit)

PHONO MM 75dB

TUNER, CD/AUX, TAPE 1, 2, 94dB

Tone Control

Bass ± 10 dB, 100Hz

Treble ± 12 dB, 10kHz

High Filter 10kHz, -6dB

Power Requirements

100/120/220/240 V AC 50/60 Hz, 160W (General Export Model)

220V AC 50Hz, 160W (Europe Model)

240V AC 50Hz, 160W (U.K./AUS. Model)

Dimensions (W x H x D)

435 x 80 x 295mm (17 $\frac{1}{8}$ " x 3 $\frac{1}{8}$ " x 11 $\frac{1}{8}$ ")

Weight 5.3kg (11.66 lbs) net

• Improvements may result in specification or feature changes without notice.

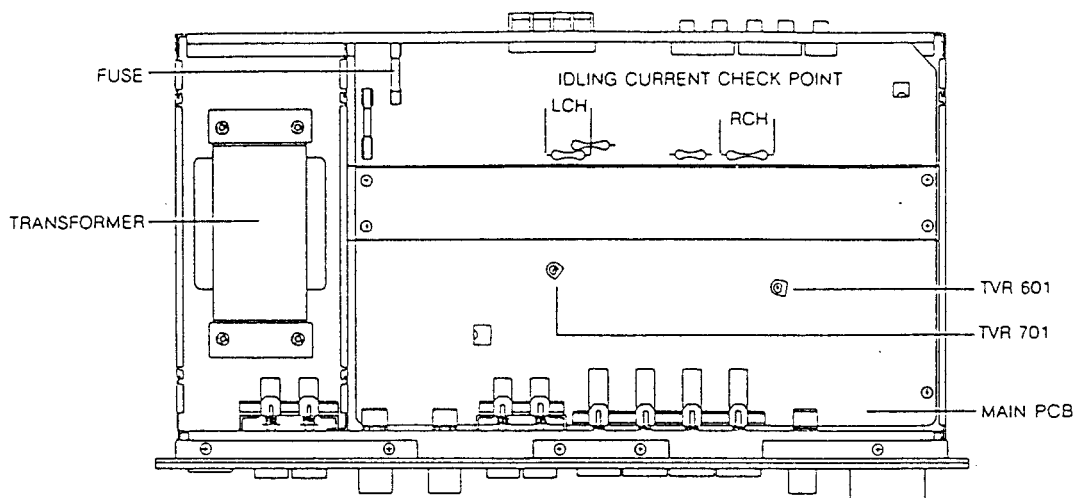
2 ADJUSTMENT LOCATION

1-1 DC BALANCE CHECK

1. Connect the DC voltmeter to SPEAKERS A terminal.
2. Depress POWER switch to ON.
3. Confirm the DC voltmeter indication within 0 V ± 20 mV.

1-2 IDLING CURRENT CHECK

1. Connect the DC voltmeter between R615 to TP1 and R515 to TP2.
2. Confirm the DC voltmeter indication within 6mV when POWER is ON after 10 seconds.
3. If the DC voltmeter indicates over 12mV adjust the TVR5 for LEFT channel or adjust the TVR6 for RIGHT channel on the MAIN PCB.
4. After the above procedures, allow 10 minutes for the amplifier to warm up completely.

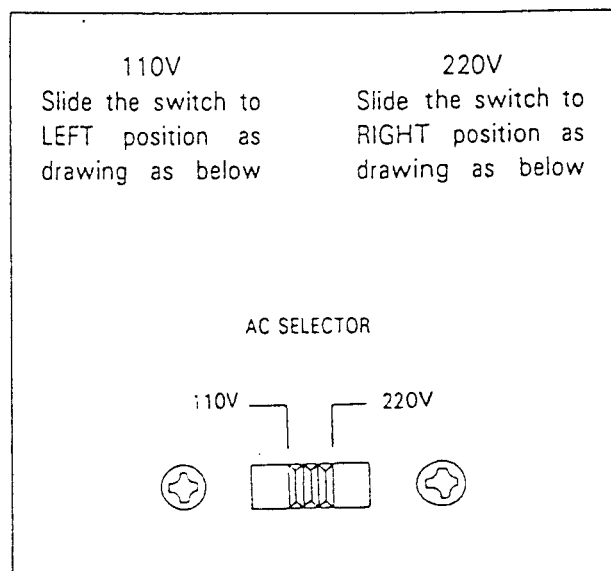


3 VOLTAGE CONVERSION

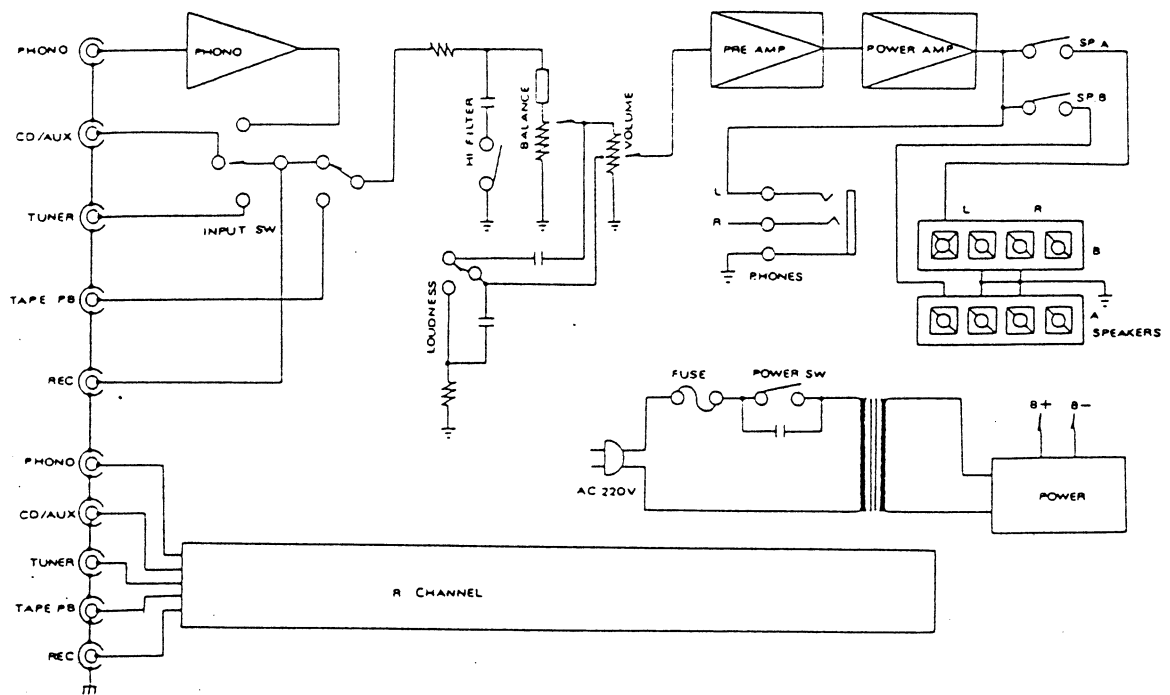
(FOR GENERAL EXPORT MODELS ONLY)

AC VOLTAGE SELECTION

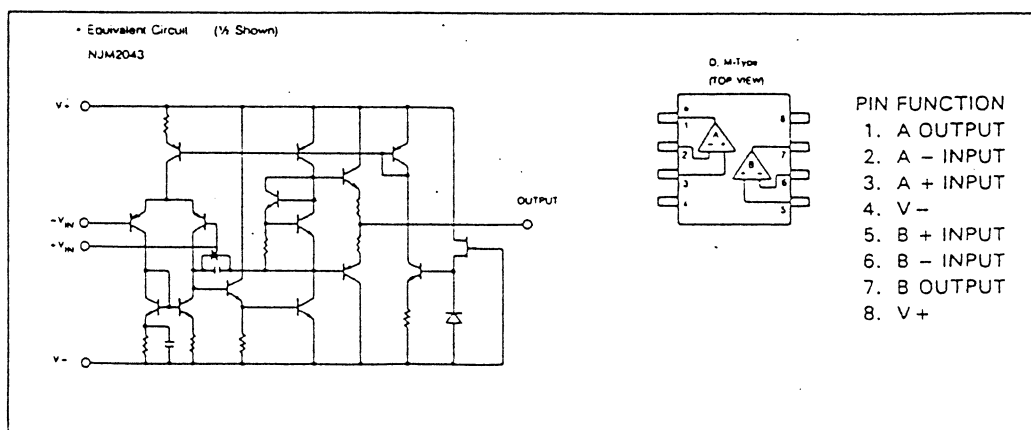
This unit operates on 110 volts or 220 volts AC. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.



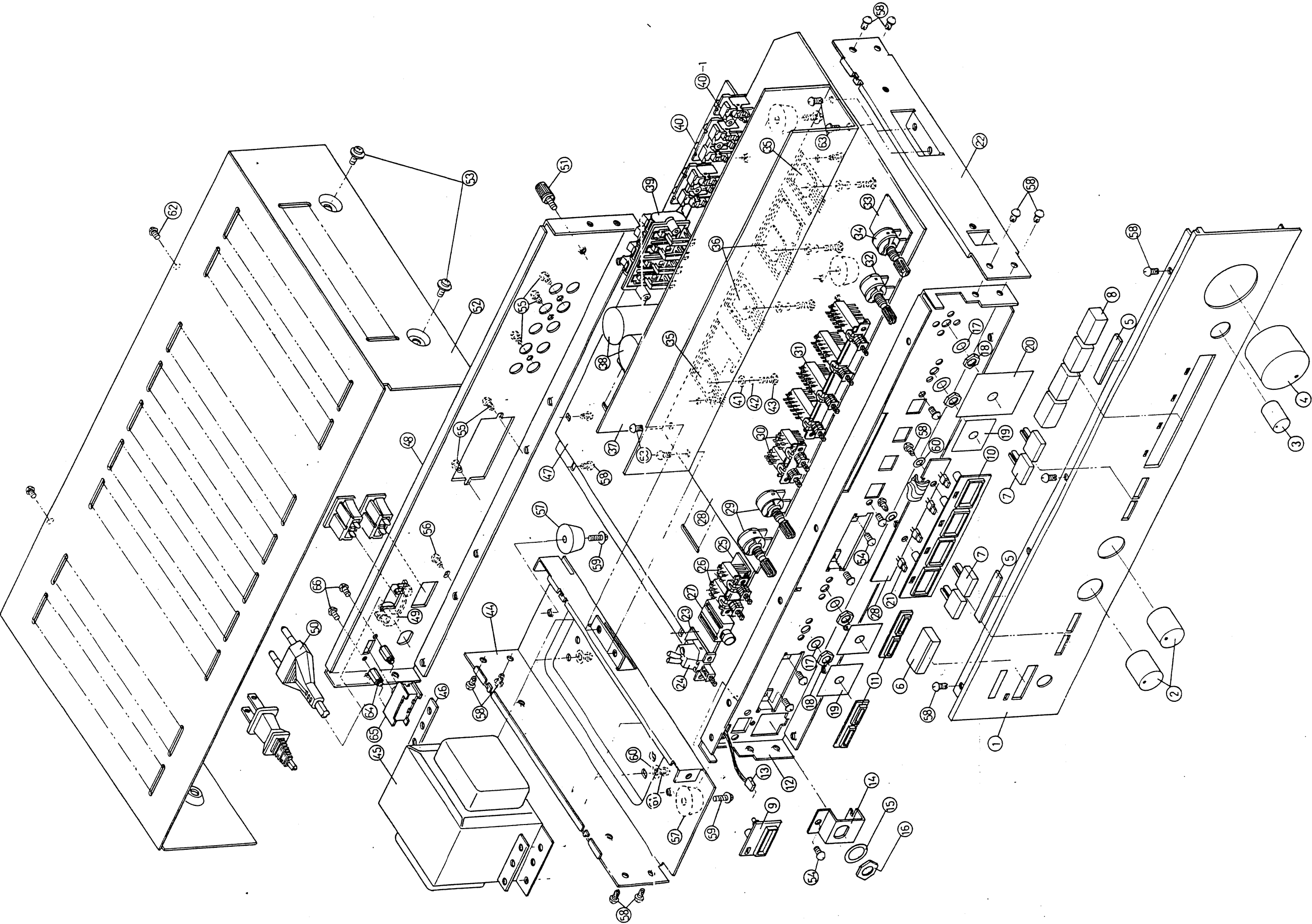
4 BLOCK DIAGRAM



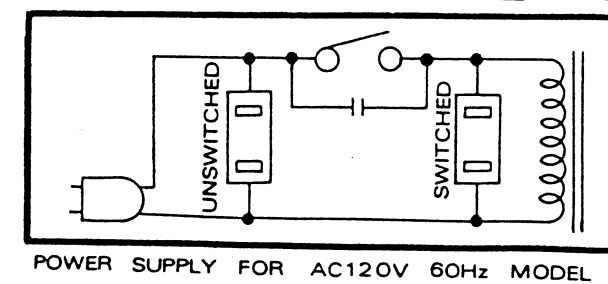
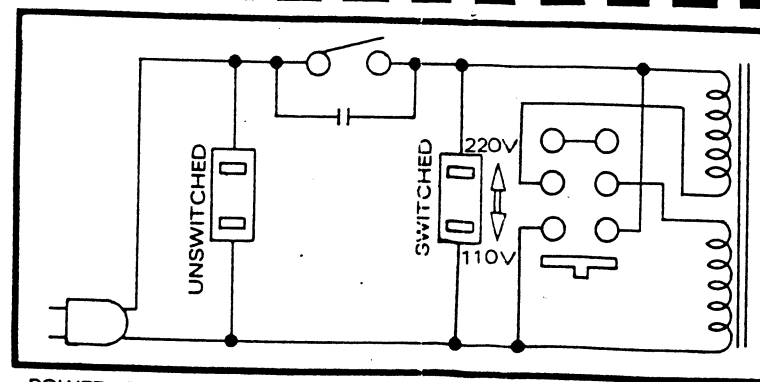
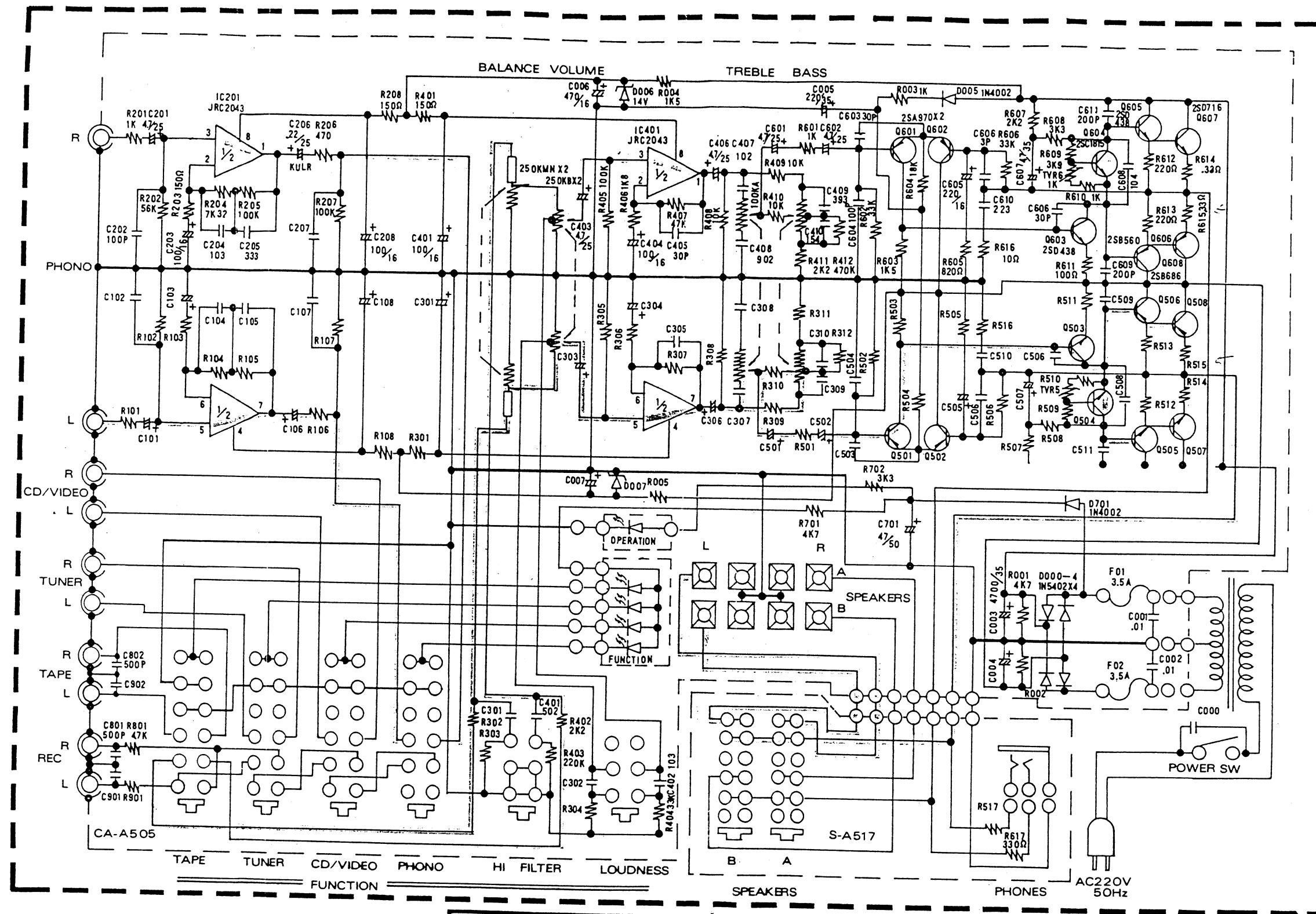
5 IC BLOCK DIAGRAM



6 EXPLODED VIEW



7 SCHEMATIC DIAGRAM



8 EXPLODED VIEW PARTS LIST

EXPLODED VIEW

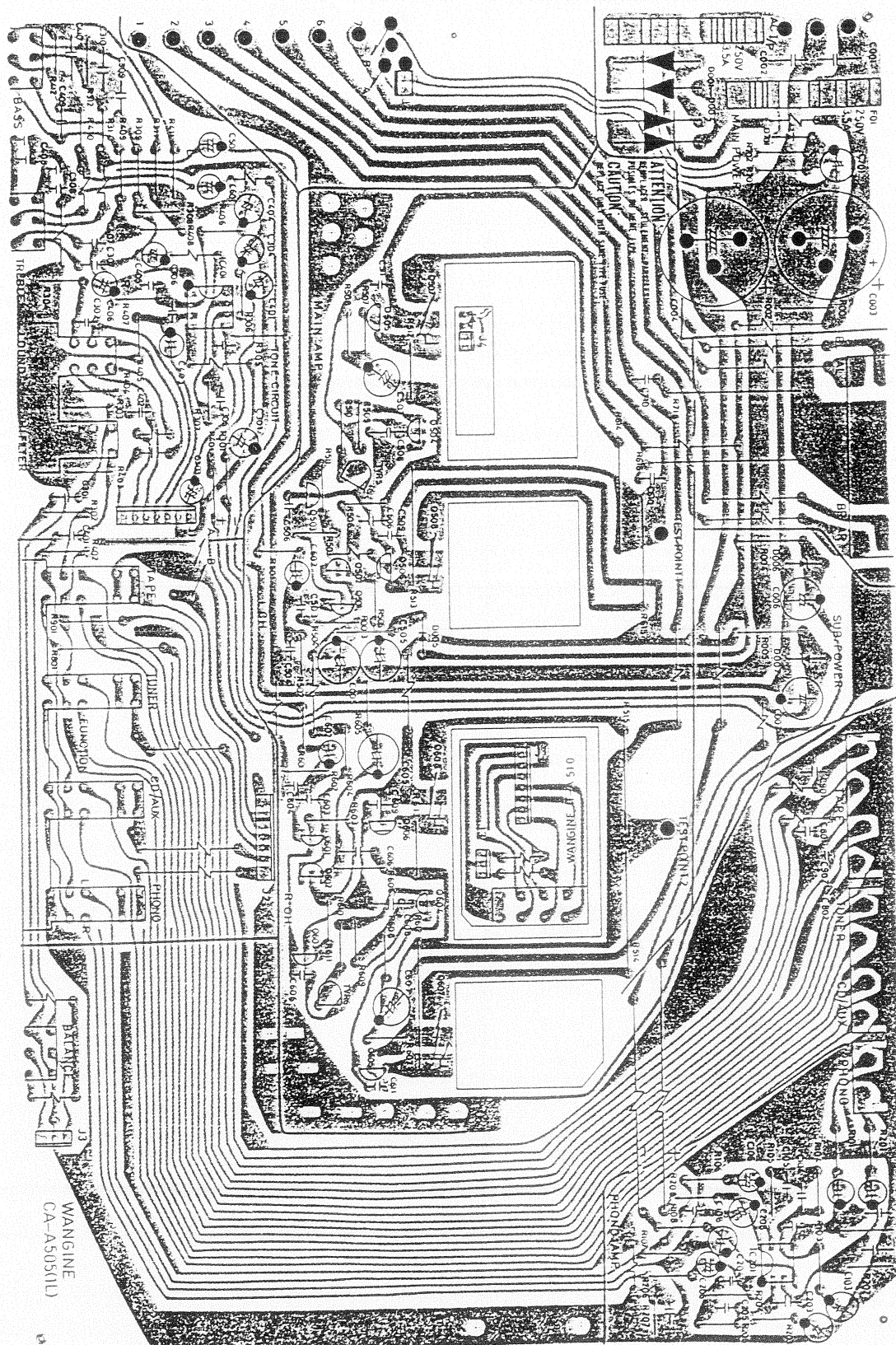
REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1.	PNLAL0184 x 351	Front Panel L-184	
2.	KNBRT01438**2	Knob KB-1438K	
3.	KNBRT01418**9	Knob KB-1418K	
4.	KNBRT01698**9	Knob KB-1698K	
5.	RUB4000800506	Sponge Cushion 40 x 8 x 5mm	
6.	KNBKY01678**8	Push Knob KB-1678	
7.	KNBRT00928**0	Push Knob KB-0928	
8.	KNBKY01688**1	Push Knob KB-1688	
9.	GSKXB01948**5	Power LED Cushion A-194	
10.	GSKXB01968**9	Washer for Push Knob A-196	
11.	FRMLE00958N*3	Washer for Push Knob A-195	
12.	CHAC*0891X354	Front Chassis C-891	
13.	LED050020RS*7	Power LED 2 x 5 Orange Red	
14.	CHAC*0897 x 355	Phone Jack Holder C-897	
15.		Washer for Phone Jack 12Ø	
16.		Nut for Phone Jack M12 x 1.75 x 0.5t	
17.		Washer 7.2Ø x 12 x 0.5	
18.	NUT07010020*2	Nut M7 x 0.75	
19.	CLT02802805*2	Flet D-0031A	
20.	CLT05005005*6	Flet D-0032A	
21.	LED050020GS*7	LED 2 x 5 Green	
22.	CHAC*0893 x 358	Right Chassis C-893	
23.	PCBS*0A517A*2	P.C.B. S-A517A	
24.	PWSES88213**1	AC SW SDL-BIP TV3	
25.	PCBS*0A517**2	PCB S-A517	
26.	PHSSUF24AK142	SW SPUF24AK014	
27.	EJKHL230603P3	Phone, HTJ064-04D	
28.	PCBCA0A505**2	Main PCB CA-A505 (1L)	
28-1.	PCBL*0A513**4	PCB L-A513 (1L)	
29.	RVR100K25AT26	VR RKDA208225-100KA x 2 x 25	
30.	PHSSUF24AK6*1	SW SPUF24AK006	
31.	PHSSUF41AK6*0	SW SPUF41AK06	
32.	RVR250K25MC20	VR K162A0-046-250KM x 2 x 25	
33.	PCBT*0A510**2	PCB T-A510	
34.	RVR250K25BF20	VR K162B0E355-250KB x 2 x 25	
35.	TRSSD07160**0	Transistor 2SD716	
36.	TRSSB06860**5	Transistor 2SB686	
37.	RAPH*0087****1	Heat Sink H-087	
38.	ELC04K7035R31	Electrolytic Capacitor 4700u 35V	
39.	SPKPT020808P5	Speaker terminal PT-208AS	
40.	RCKYK000904P2	RCA Jack KC21-0009	
40-1.	RCKYK000802P0	RCA Jack KC21-0008	
41.	FTW03208005*7	Washer 3.2Ø	
42.	SPW03200000*0	Spring Washer 3.2Ø	
43.	SCECT3016YH*1	Hexagon Cross Screw M3 x 16	
44.	CHAC*0892*356	Left Chassis C-892	
45.	864026E2***T8	Transformer E186 x 40	EUR
	864026B2***T7	Transformer E186 x 40	EUR UK
	864026A2***T3	Transformer E186 x 40	USA
	864026S2***T9	Transformer E186 x 40	EX
46.	CHAC*0955X354	Transformer Holder C-955	
47.	CHAC*0896X353	Bottom Chassis C-896	
48.	CHAC*0894X351	Rear Panel C-894	
49.	CLPB*0007***5	Bushing B-7	
50.		AC Cord CEE x 2C	EUR
		AC Cord SPT-2 AWG18 x 2C	EX
		AC Cord SPT-2 AWG18 x 2C (Polarized)	USA, CND
		AC Cord BS 6500	EUR UK
		AC Cord SAA	AUS
51.	SCECM4010WCES	Ground Screw CRWMS E-176	
52.	CHAC*0895X351	Upper Cover C-895	
53.	SCECM4006BW*2	Screw CRWMS 4 x 6	
54.	SCECM3006YC*9	Screw CRMS 3 x 6	
55.	SCECT01098CP7	Plastic Screw 1/8 x 9	
56.	SCECT3006BC*6	Screw CRTS 3 x 6	
57.	FTP**0018***1	Foot Cushion 18Ø x 10mm	
58.	SCECT3006YC*7	Screw CRTS 3 x 6	
59.	SCECM4008BW*6	Screw CRWMS 4 x 8	
60.	FTW04010010*6	Washer 4.2Ø x 10Ø x 1	
61.	SCECM4008YS*7	Screw CRSMS 4 x 8	
62.	SCECT3006BC*6	Screw CRTS 3 x 6	
63.	SCECT3010YC*9	Screw CRTS 3 x 6	
64.	STNVC100180*1	Copper Post E-161	
65.	ACKRT0021***2	Slide SW	EX
66.	SCECM3006BC*8	Screw CRMS 3 x 6	EX
67.	ACKS*16519**8	AC Outlet S-16519	CND
	ACLRT0021***2	AC Outlet R7-21	EX
68.	ITDA**OX35*38	Owner's Manual	
69.		Styrofoam PF-054	
70.		Inside carton	
71.		Outside carton (Two in one)	

9 PC BOARD AND PARTS LIST

9.1 MAIN AMP PCB CA-A505 (1L)

TONE PCB T-A510

POWER LED PCB



MAIN AMP PCB ASSY CA-A505

REF. NO.	PARTS NO.	DESCRIPTION
	PCBCA0A505**2	MAIN AMP PCB ASSY
	PCBCA0A505**2	MAIN AMP PCB
-IC'S-		
IC201, IC401	ICCNJ02043DD6	OJRC2043DD
-TRANSISTORS-		
Q501, Q601	TRSSA1038E**3	2SA1038
Q502, Q602	TRSSA1038E**3	2SA1038
Q503, Q603	TRSSD0438F**0	2SD438F
Q504, Q604	TRSSC18158L**1	2SC18158L
Q505, Q605	TRSSD0438F**0	2SD438F
Q506, Q606	TRSSB0560F**7	2SB560F
Q507, Q607	TRSSD07160**0	2SD716
Q508, Q608	TRSSB06860**5	2SB686
-DIODES-		
D001-D004	DIDIN5401***1	IN5402
D005	DIDIN4002***2	IN4002
D006, D007	DID014VOW5**0	14V 0.5W
D701	DIDIN4002***2	IN4002
-CARBON RESISTORS-		
All resistors are rated $\pm 5\%$ tolerance and 1/4W		
R101, R201	CBRO01K0W4TJ7	1K ohm
R102, R202	CBRO56K0W4TJ7	56K ohm
R103, R203	CBR150R0W4TJ1	150 ohm
R106, R206	CBR470R0W4TJ1	470 ohm
R107, R207	CBR100K0W4TJ9	100K ohm
R108, R208	CBR150R0W4TJ1	150 ohm
R301, R401	CBR150R0W4TJ1	150 ohm
R302, R402	CBRO2K20W4TJ5	2K2 ohm
R304, R404	CBRO33K0W4TJ2	33K ohm
R305, R405	CBR220K0W4TJ6	220K ohm
R306, R406	CBRO1K80W4TJ1	1K8 ohm
R307, R407	CBRO47K0W4TJ6	47K ohm
R308, R408	CBRO10K0W4TJ8	10K ohm
R309, R409	CBRO10K0W4TJ8	10K ohm
R310, R410	CBRO10K0W4TJ8	10K ohm
R311, R411	CBRO2K20W4TJ5	2K2 ohm
R312, R412	CBR470K0W4TJ6	470K ohm
R501, R601	CBRO01K0W4TJ7	1K ohm
R502, R602	CBRO33K0W4TJ2	33K ohm
R503, R603	CBRO1K50W4TJ0	1K5 ohm
R504, R604	CBRO18K0W4TJ4	18K ohm
R506, R606	CBRO33K0W4TJ2	33K ohm
R507, R607	CBRO2K20W4TJ5	2K2 ohm
R508, R608	CBRO3K30W4TJ4	3K3 ohm
R509, R609	CBRO3K90W4TJ6	3K9 ohm
R510, R610	CBRO01K0W4TJ7	1K ohm
R511, R611	CBR100R0W4TJ4	100 ohm
R801, R901	CBRO4K70W4TJ4	4K7 ohm
All resistors are rated $\pm 5\%$ tolerance and 1/3W		
R512, R612	CBR220R0W3TJ0	220 ohm
R513, R613	CBR220R0W3TJ0	220 ohm
All resistors are rated $\pm 5\%$ tolerance and 1/2W		
R001, R002	CBRO4K70W2TJ2	4K7 ohm
R003	CBRO01K0W2TJ5	1K ohm
R004, R005	CBRO1K50W2TJ9	1K5 ohm
R616, R716	CBRO10R0W2TJ1	10 ohm
R701	CBRO3K30W2TJ2	3K3 ohm
R702	CBRO2K70W2TJ1	2K7 ohm
-METAL FILM RESISTORS-		
All resistors are rated $\pm 2\%$ tolerance		
R104, R204	PMR07K50W4TF5	7K5 ohm 1/4W
R105, R205	PMR100K0W4TJ7	100K ohm 1/4W
-CEMENT FILLED FIXED RESISTORS-		
R514, R614	CMROR3302WTJ9	7K5 ohm 2W
R515, R615	CMROR3302WTJ9	0.33 ohm 2W
-CAPACITORS-		
C001, C002	CRCOP0101KRZ1	Ceramic 0.01u 1000V
C003, C004	ELC04K7035R31	Elec. 4700u 35V
C005	ELC220U035R31	Elec. 220u 35V
C006, C007	ELC470U025R38	Elec. 470u 25V

REF. NO.	PARTS NO.	DESCRIPTION
C101, C201	ELC04U7025R35	Elec. 4.7u 25V
C102, C202	CRC0100050RK5	Ceramic 100P 50V
C103, C203	ELC100U016R31	Elec. 100u 16V
C104, C204	PEC00U01050RJ8	Mylar 0.01u
C105, C205	PECU033050RJZ	Mylar 0.003u
C106, C206	ELC0U22050R57	Elec. 0.22u 25V KULR
C108, C208	ELC100U016R31	Elec. 100u 16V
C301, C401	PEC4700050RJ6	Mylar 0.005u
C301, C401	ELC100U016R31	Elec. 100u 16V
C302, C402	PEC00U01050RJ8	Mylar 0.01u
C303, C403	ELC04U7025R35	Elec. 4.7u 25V
C304, C404	ELC100U016R31	Elec. 100u 16V
C305, C405	CRC0030050RK3	Ceramic 30P 50V
C306, C406	ELC04U7025R35	Elec. 4.7u 25V
C307, C407	PEC1000050RJ9	Mylar 0.001u
C308, C408	PEC2000050RJ5	Mylar 0.002u
C308, C408	PEC6800050RJ4	Mylar 0.0068u
C309, C409	PECU039050RJO	Mylar 0.039u
C310, C410	PEC0U15050RK6	Mylar 0.15u
C501, C601	ELC04U7025R35	Elec. 4.7u 25V
C502, C602	ELC04U7025R35	Elec. 4.7u 25V
C503, C603	CRC0030500RK8	Ceramic 30P 500V
C504, C604	CRC0100050RK5	Ceramic 100P 50V
C505, C605	ELC220U016R37	Elec. 220u 16V
C506, C606	CRC0003050RH3	Ceramic 3P 50V
C507, C607	ELC047U035R31	Elec. 47u 35V
C508, C608	PEC00U01050RK3	Mylar 0.1u
C509, C609	CRC0200500RK5	Ceramic 200P 500V
C510, C610	PECU022050RK3	Mylar 0.022u
C511, C611	CRC0200500RK5	Ceramic 200P 500V
C610, C710	PECU047050RK0	Mylar 0.047K
C701	ELC047U050R39	Elec. 47u 50V
C801, C901	CRC0100050RK5	Ceramic 100P 50V
C802, C902	CRC0100050RK5	Ceramic 100P 50V
	PEC3300050RK7	Mylar 0.003u
-VARIABLE RESISTORS-		
TVR5, TVR6	TVR001K063HM1	Semi-Fixed 1K ohm
Treble Bass	RVR100K25AT26	RKDA20B225-100KA x 2 x 25
Balance	RVR250K25MC20	K162A0A046-250KMN x 2 x 25
-MISCELLANEOUS-		
	RCKYK000904P2	4P RCA Jack
	RCKYK000802P0	2P RCA Jack
	SPKPT020808P5	Speakers Terminal
	SDY43SQ1119*8	PIN 1 x 1 x 19mm
	FUHFH0003***1	Fuse Holder
	PHSSUF41AK6*0	Push Switch (SPUF41AK06)
	PHSSUF24AK6*1	Push Switch (SPUF24AK006)
	RAPH*0087***1	Heat Sink H-087 HTJ064-040

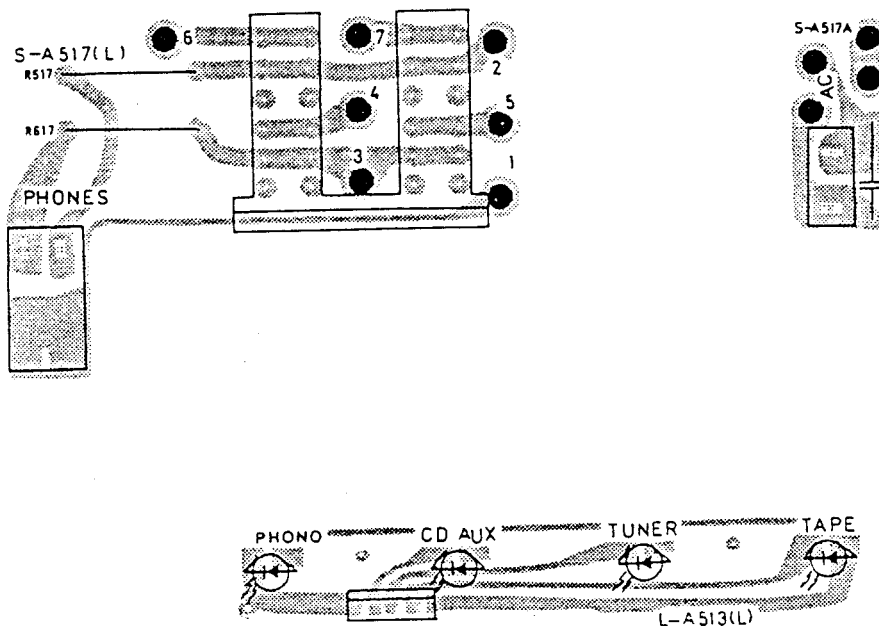
TONE PCB ASSY T-A510

REF. NO.	PARTS NO.	DESCRIPTION
T-A510	PCBT*0A510**2	Tone PCB ASSY
	PCBT*0A510**2	Tone PCB
	RVR250K25BF20	Variable Resistors

POWER LED PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	GSKKB0194B**5	A-194
	LED050020RS*7	LED 2 x 5 ORANGE RED

9.2 FUNCTION LED PCB L-A513(L)
SWITCH PCB S-A517(A,L)



SWITCH PCB ASSY S-A517A

REF. NO.	PARTS NO.	DESCRIPTION
	PCBS*0A517A*2	Switch PCB ASSY
	PCBS*0A517A*2	Switch PCB
	PWSES88213**1	Switch, Power
C000	CRCOP0101KRZ1	Ceramic 0.005u 500V

FUNCTION LED PCB ASSY L-A513

REF. NO.	PARTS NO.	DESCRIPTION
	PCBL*0A513**4	Function LED PCB ASSY
	PCBL*0A513**4	Function LED PCB
	LED050020GS*7	LED 2 x 5 GREEN
	PRL13002405P5	5P x 130mm
	GSKXB01968**9	A-196

SWITCH PCB ASSY S-A517(L)

REF. NO.	PARTS NO.	DESCRIPTION
	PCBS*0A517**2	Switch PCB ASSY
	PCBS*0A517**2	Switch PCB
	-METAL FILM RESISTORS-	
R517, R617	MTR330R01WTJ4	330 ohm 1W
	-MISCELLANEOUS-	
	PHSSUF24AK142	Push Switch SPUF24AK014
	EJKHL230603P3	Jack Phone